Michael Bolotski   <u>PATENT</u>
Application No.: 09/480,986
Page 11

<u>REMARKS/ARGUMENTS</u>

Claims 1-25 are pending in the present application. Claims 3, 6-8, 14-16, and 20 were previously amended. Claims 1, 5, 9, 11, and 17 are currently amended. New claims 22-25 have been added. No new matter has been added in either the amended or new claims. Reconsideration of the claims is respectfully requested.

Claim Rejections - 35 USC § 112

Claims 5 and 11 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claim 5 was rejected for an insufficient antecedent basis for a claim limitation. Claim 5 has been amended to correct this antecedent basis error.

Claim 11 was rejected for omitting essential steps, such omission amounting to a gap between the steps. Claim 11 has been amended to recite, in part, "to apply a third paint voltage to one pixel element from the plurality of pixel elements during a <u>fifth</u> time period after the single transition voltage is applied to the plurality of pixel elements, ..." The applicants respectfully submit that this amendment remedies this rejection.

Claim Rejections - 35 USC § 102

Claims 1-21 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,144,353 to McKnight. McKnight appears to disclose a display system in which a display is quickly driven dark and held dark while pixel data for a subframe is loaded onto the pixel electrodes. (McKnight at Fig. 3A, steps 204 and 206). The liquid crystal display intensity is represented graphically in Fig. 2D, in which the entire display is driven dark at time t_0 (curve 161) and pixel data is loaded onto the pixel electrode during time T_L, a "time during which the display is kept in its dark state by keeping the voltage across the liquid crystal preferably at or above V_B." (McKnight at Fig. 2D and column 11, lines 1-5). After the pixel data is loaded, the voltage across the

liquid crystal is changed, allowing the overall display intensity to increase and thus displaying the data loaded during time T_L. (McKnight at column 11, lines 5-9). Thus, McKnight teaches that pixel data is loaded while the entire display is held in the dark state.

Claims 1-8

The present invention discloses a method, in one embodiment, of reducing the amount of time required to "paint" pixels in a liquid crystal display. Thus, amended claim 1 recites, in part, "applying a single transition voltage to the plurality of pixel elements on the display during a first period of time, each pixel element including a liquid crystal material having at least a first state and a second state, ... and wherein the single transition voltage induces liquid crystal material in each pixel element to begin transitioning to the second state; thereafter ... while each pixel element is transitioning to the second state, applying a first paint voltage to one pixel element of the plurality of pixel elements during a second period of time, ..." The claimed invention applies the paint voltage to the pixel element while each pixel element is transitioning to the second (bright, in an embodiment) state. Thus, the claimed invention improves the performance of liquid crystal displays by "overlapping the optical transition time with the matrix addressing time." (Specification at page 3, line 23, Fig. 2).

McKnight does not teach or suggest loading pixel data while each pixel element is transitioning to the second (bright) state. On the contrary, McKnight specifically darkens the display and then loads pixel data while the display is kept in the first (dark) state. (McKnight, Fig. 2D, times 161 and 162). McKnight then holds the display in the darkened state for the duration of the pixel loading procedure. (McKnight, Fig. 2D, time162). Therefore, the Applicants respectfully submit that McKnight does not teach or suggest all the limitations found in amended claim 1 and claim 1, is therefore, in a condition for allowance.

Claims 2-8, which depend from claim 1 are believed to be allowable for at least the reasons given above, and for the specific limitations they recite.

Michael Bolotski   <u>PATENT</u>
Application No.: 09/480,986
Page 13

<u>Claims 9-16</u>

Amended claim 9 recites, in part, "a paint circuit coupled to the transaction circuit, the paint circuit configured to apply, <u>while each pixel element is transitioning to the second state</u>, a first paint voltage during a third time period ...." Therefore, the claimed invention applies the first paint voltage while each pixel element is transitioning to the second (bright, in an embodiment) state. As discussed with respect to claim 1, McKnight teaches away from loading pixel data while the display is transitioning to a bright state. On the contrary, McKnight loads pixel data while the display is held in a dark state. Therefore, McKnight does not teach or suggest all the limitations of amended claim 9. The Applicants respectfully submit that amended claim 9, is therefore, in a condition for allowance.

Claims 10-16, which depend from claim 9 are believed to be allowable for at least the reasons given above, and for the specific limitations they recite.

<u>Claims 17-21</u>

Amended claim 17 recites, in part, "a driving circuit coupled to the initializing circuit configured to apply a first drive voltage during a third time period, <u>in which each pixel element is transitioning to the second state</u>, ..." For the reasons argued above, the Applicants respectfully submit that McKnight does not teach or suggest all the limitations of amended claim 17 and therefore, amended claim 17 is in a condition for allowance.

Claims 18-21, which depend from claim 17 are believed to be allowable for at least the reasons given above, and for the specific limitations they recite.
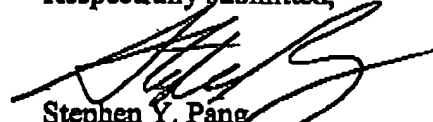
<u>CONCLUSION</u>

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Michael Bolotski   <u>PATENT</u>
Application No.: 09/480,986
Page 14

   If the Examiner believes a telephone conference would expedite
prosecution of this application, please telephone the undersigned at 650-326-2400.

          Respectfully submitted,

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